


Notice


Operation of EDS in FESEM Gemini 300 users/Operators regarding

Date: 24-04-2023

It is for your information that the EDS equipped with FESEM Gemini 300 instrument is a windowless type detector and is very prone to get contaminated by samples (specifically powder sample). Therefore, followings steps should be strictly followed by users/operators to prevent any breakdown due to sample contamination.

1. The operator/user should ensure the heavy coating of the non-conducting sample. If heavy coating damage the surface features, the sample may be analyzed with a normal coating at low kV (1-3 kV) or as per the advice of the in-charge with the inspection.
2. **The powder samples e.g. organic, inorganic, soil, fly ash etc. should be properly dried and made pelletized form in your lab prior to the gold coating at CIF.**
3. After coating, the sample stub should be touched only by forcep or hand with the glove during removal from the coater unit as well as sample mounting in the FESEM chamber.
4. Always take a freshly coated sample for mounting; don't use a previously coated sample.
5. Non-conducting solid, thin film samples may be fixed on conductive carbon tape; however, the samples fixed on carbon tape should be covered from all sides with the Carbon tape before coating.
6. Sample deposited/mounted on glass plate can't be taken. However, if user demands to analyse such a sample because of the non-compatibility of other methods of preparation, the operator/user needs to take prior permission from the instrument in-charge.
7. The operator should inform the instrument in-charge about the sample if he/she wants to analyze his/her sample against the slot vacancy. Non-office hour key issue form has to be submitted if analysis time exceeds office hours in working days.
8. Please avoid further scanning of the charging sample during taking FESEM image/EDX analysis and inform immediately to the instrument in-charge if required.
9. Sample submitted in user's own sample mounting stub will not be accepted; however if require, the user may get issued the sample mounting stub from CIF one day before the analysis.
10. **Powered samples in the pelletized form will be accepted.**


(K.K. Senapati)
T.O. in-charge


HoC, CIF 24/4/2023